

CLAIMS

1. A polymer composition for peroxide bleaching of a cellulosic fibre material, said composition being in the form of a stable aqueous polymer solution obtained by bringing in an aqueous medium a first polymer (A) comprising a partly or totally
5 acidic homopolymer of acrylic acid, methacrylic acid or maleic acid, or a copolymer of acrylic acid and/or methacrylic acid with an unsaturated dicarboxylic acid, into contact with a second polymer (B) comprising a polylactone of a poly- α -hydroxyacrylic acid in solid form or as a moist powder or as a slurry, said polymer solution having a pH of at most 5.
- 10 2. The polymer composition of claim 1 wherein the polymer solution has a pH of between 2 and 5, preferably between 3 and 4.5.
3. The polymer composition of claim 1 or 2 wherein the first polymer (A) comprises a raw polymer obtained from the homopolymerization of acrylic acid, methacrylic acid or maleic acid or from the copolymerization of acrylic acid and/or
15 methacrylic acid with an unsaturated dicarboxylic acid, said raw polymer having an acidic pH, preferably a pH of at most 5.
4. The polymer composition of any of claims 1 to 3 wherein the first polymer (A) has a molecular weight of at least 4000, preferably at least 10000, and more preferably at least 30000.
- 20 5. The polymer composition of any of claims 1 to 4 wherein the second polymer (B) has a molecular weight of at least 5000, preferably at least 10000, and more preferably at least 15000.
6. The polymer composition of any of claims 1 to 5 wherein the first polymer (A) comprises a copolymer of acrylic acid and/or methacrylic acid with maleic acid,
25 wherein the molar ratio of acrylic acid and/or methacrylic acid to maleic acid is from 80:20 to 20:80, preferably from 70:30 to 50:50.
7. The polymer composition of any of claims 1 to 6 wherein the share of the second polymer (B) is from 1 to 50% by weight of the total amount of the first and second polymers (A) and (B).
- 30 8. The polymer composition of any of claims 1 to 7 wherein the concentration of the first and second polymers (A) and (B) in the polymer solution is at least 10%, preferably at least 15% and more preferably at least 20% by weight.

9. A process for bleaching a cellulosic fibre material with a peroxide compound in an aqueous alkaline medium, comprising a step of adding to the cellulosic fibre material a polymer composition in the form of a stable polymer solution obtained by bringing in an aqueous medium a first polymer (A) comprising a partly or totally
5 acidic homopolymer of acrylic acid, methacrylic acid or maleic acid, or a copolymer of acrylic acid and/or methacrylic acid with an unsaturated dicarboxylic acid, into contact with a second polymer (B) comprising a polylactone of a poly- α -hydroxyacrylic acid in solid form or as a moist powder or as a slurry, said polymer solution having a pH of at most 5.
10. The process of claim 9 wherein the polymer composition is as defined in any of claims 2 to 8.
11. The process of claim 9 or 10 wherein the peroxide compound and an alkaline substance are added to the cellulosic fibre material after the addition of the stabilizing composition.
12. A process for bleaching a cellulosic fibre material with a peroxide compound in an aqueous alkaline medium, comprising treating the cellulosic fibre material with an alkaline substance, a peroxide compound and a stabilizing composition, said composition being in the form of a stable polymer solution obtained by bringing in
15 an aqueous medium a first polymer (A) comprising a partly or totally acidic homopolymer of acrylic acid, methacrylic acid or maleic acid, or a copolymer of acrylic acid and/or methacrylic acid with an unsaturated dicarboxylic acid, into
20 contact with a second polymer (B) comprising a polylactone of a poly- α -hydroxyacrylic acid in solid form or as a moist powder or as a slurry, said polymer solution having a pH of at most 5.
13. The process of any of claims 9 to 12 wherein the polymer composition is used in an amount corresponding to 0.05 to 10 kg of the polymers as active material per ton of dry cellulosic fibre material, preferably in an amount corresponding to 0.1 to 5 kg per ton of dry cellulosic fibre material.
14. The process of any of claims 9 to 13 wherein the cellulosic fibre material
30 comprises a chemical, mechanical, chemi-mechanical or deinked pulp.